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Review of the training program of pediatric residents: is it appropriate for their future careers?

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Abstract

Background: Training of pediatric residents is a dynamic process which should be changed as the nature and epidemiology of pediatric diseases change. In this study, we compared the training program of the pediatric residents with the disorders of the pediatric patients who had referred to pediatric offices.

Methods: The study was conducted in pediatric offices in Shiraz, South of Iran. The main complaints of all the patients who were referred to these offices in the first 3 days of the four seasons of the year were recorded. Finally, descriptive statistics was used to determine the frequency of different complaints among these patients.

Results: There are 58 Pediatrics offices in Shiraz and 37 offices completed the questioners (64%). The most frequent complaints of the patients were related to infections, especially respiratory and gastrointestinal ones. Nutritional and growth problems were other frequent complaints. Nonetheless, a high number of the patients were referred due to skin, eye, or ear problems or for check up of the baby.

Conclusion: There is an important training–practice problem in the curriculum of pediatric residents. Thus, we suggest decreasing the periods of inpatient subspecialty training and increasing the period of outpatient dermatology, ophthalmology, otolaryngology, and well-baby clinics.

Keywords: Training, pediatric residents, complaints.

Introduction

Learning program of pediatric residents (PRs) is mostly performed on the basis of Oslerian-generalist model and PRs spend most of their time in teaching hospitals (1). A few months of their learning time are also spent in outpatient settings; however, since most of these outpatient clinics are affiliated to the teaching hospitals, the patients of these clinics are different from those who come to the pediatric offices in the community (2). This model of teaching to residents is not unique to medical universities in Iran and many great international medical universities have this model of education to their pediatric and internal medicine residents (1-3). Although minor changes have been made in the teaching programs of PRs in the recent years, this question is always present: Is there any correlations between our education programs for the PRs and their needs in future practices?

To answer this question, several studies have been conducted among the graduates and residents of different universities. Those studies found that PRs were not well trained regarding some competencies (4-7), but well prepared in some other aspects (8). We believe that if we want to revise the PR

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training program, we should notice the expectation of the community from a pediatrician. Therefore, we conducted this study to find the spectrum of complaints of children who referred to pediatric offices as one of the important guides to review the present training program of PRs. According to our searches in the literature, this is the first study comparing the patients' needs with the PRs’ training programs.

Methods

All pediatric offices in Shiraz, south of Iran were included in the study. The study was performed in the first 3 days of all the seasons in one year (totally 12 days). A questionnaire was filled out in each office and the main complaints of all the patients were recorded exactly. Then, all the questionnaires reviewed by a pediatrician and the patients' complaints were categorized.

Descriptive statistics was used to determine the frequency of different complaints among these patients. We utilized frequency numbers and relative percentages for this purpose. Complete educational program of the 3-year training period of the PRs was also reviewed to see if PRs were trained enough for common patients’ complaints.

Results

Of 58 pediatric offices in Shiraz 37 filled out the questionnaires (64%). Table 1 demonstrates the number of different complaints among these patients.

The most common complaints were related to infectious problems, especially respiratory and gastrointestinal ones.

Among non-infectious complaints, the most common ones were respiratory, gastrointestinal, nutritional, and growth problems.

In addition, 152 children were brought to the pediatric offices only for check up. Skin, eye, and ear problems were also relatively frequent. The less common complaints were related to rheumatologic, car-

Table 1. The number and percentage of complaints among the patients of pediatric offices.

Complaints	No.(percentage)
Infectious	2179 (43%)
Infectious, respiratory	1146 (22%)
Infectious, gastrointestinal	701 (14%)
Infectious, urinary	218 (4%)
Infectious, cutaneous	53 (1%)
Other infectious complaints	61 (1%)
Non – infectious	2937 (57%)
Respiratory	581 (11%)
Gastrointestinal	503 (9%)
Nutritional	393 (7%)
Other complaints	381 (7%)
Growth	192 (4%)
Check up	152 (3%)
Skin	121 (2%)
Eyes	119 (2%)
Ears	115 (2%)
Hematologic	89 (2%)
Neurologic	77 (2%)
Psychiatric	76 (1%)
Orthopedic	53 (1%)
Urinary	37 (1%)
Endocrine	22 (0.4%)
Gynecologic	13 (0.3%)
Cardiac	9 (0.2%)
Rheumatologic	4 (0.1%)

diac, and gynecologic problems.

In this study, complete educational curriculum of PRs in Shiraz University of Medical Sciences was reviewed. They spend 9 months of their educational period in the general wards, 6 in the emergency departments, and 3 in the outpatient clinics.

Moreover, they spend 11 months in different subspecial wards. When they were passing their course in the subspecial wards, they also participated in outpatient subspecialty clinics, as well.

Discussion

This study was the first research which gathered the patient's complaints and compared them with the curriculum of pediatric residency.

As we noted previously, the most frequent complaints of the outpatient pediatric patients were infectious complication (43%). Although PRs usually see the patients with minor infections in their educational outpatient clinics with is a period of 3 months, this was not enough for the PRs to obtain appropriate experience in management of these patients. Nutritional problems and check up were among the most common causes of the pediatric patients' referral to the pediatric offices; however, there was not any specific setting for training the residents regarding these issues. They need to spend at least one month in nutrition clinics and one month in well-baby clinics.

Cutaneous, ophthalmic, and otic problems are relatively common among the pediatric patients and the PRs' training in these issues is limited to general outpatient clinics. Thus, cooperation is necessary between the departments of pediatrics and dermatology, ophthalmology, and otolaryngology for involving the PRs in their OPD clinics.

The patients in our study were not confined to urban people, because all pediatric offices in Shiraz were enrolled in this study including offices located in sub-urban areas.

Our findings were similar to some other studies conducted on the issue. For instance, Freed found that PRs' training program should be revised and more emphasis should be put on some areas of training (9). Moreover, the PRs of Massachusetts University believed that they needed more training opportunities to raise their experiences in communicating with community agencies and schools (10). In addition, the graduates of Massachusetts University noted that they were not well-prepared for nutrition, phone, and the patient's management (11).

According to the findings of the present study, there was a training–practice gap in the curriculum of the PRs. However, financial problems were the most important barriers for changing the PRs' educational curricula (12).

Though, training programs of PRs should not be limited to outpatient diseases, and they should become expert in the management of admitted patients as well. Therefore, learning in hospital wards with general pediatric patients admission should be continued. But, due to limitation of the educational period of PRs, we suggest to decrease the periods of subspecialty wards and adding OPD clinics for nutrition, well-baby, dermatology, ophthalmology, and otolaryngology. The total educational period of PRs is recommended to be increased, as well.

This study was limited to Shiraz offices in south of Iran. The patients of this area may be different from other parts of Iran which have different cultural and epidemiological conditions. A larger study may be needed to include all parts of this country.

Conclusion

There is an important training–practice gap in the curriculum of pediatric residents. They spend several months in subspecialty wards, but their training for common outpatient disorders was neglected. Thus, we suggest decreasing the periods of inpatient subspecialty training and increasing the period of outpatient dermatology, ophthalmology, otolaryngology, and well-baby clinics.

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